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EXAMINER

LOVEL, KIMBERLY M

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/796,249	Applicant(s) OWARA ET AL.	
	Examiner Kimberly Lovel	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/15/05; 12/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-37 are rejected.

Double Patenting

2. Claims 1-37 of this application conflict with claims 1-37 of Application No. 10/777,978. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 1-37 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-37 of copending Application No. 10/777,978. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 15 July 2005 and 10 December 2004 was filed after the mailing date of the application on 10 March 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

(1) plurality of standalone headers

(2) the data set header

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

8. The disclosure is objected to because the abstract contains more than 150 words.

Appropriate correction is required.

9. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection,

rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

10. The attempt to incorporate subject matter into this application by reference to a plurality of patent applications is ineffective because:

- a. Applicant must specify a clear intent by using the root words "incorporate" and "reference;" and
- b. Clearly identify the referenced patent, application or publication by serial number, title and filing date.

NOTE: Essential material may be incorporated by reference, but only by way of an incorporation by reference to a U.S. patent or U.S. patent application publication, which patent or patent application publication does not itself incorporate such essential material by reference. Refer to 37 CFR 1.57

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or the original nonprovisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

Claim Objections

11. **Claims 3, 4, 5, 11, 13, 18, 24 and 34** are objected to because of the following informalities:

Claim 3 is objected to because it is a dependent claim that depends on itself.

Claim 3 is considered to be dependent on claim 2.

Claim 4 recites the limitation "the source file system" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the extended attributes" in line 1. Claim 5 is dependent on claim 1, and claim 1 only recites "an extended attribute" and not "extended attributes." There is insufficient antecedent basis for this limitation in the claim.

Claims 5 and 18 recite the abbreviation "ACLs" before first defining the term. It is suggested that claim 5 recites "Access Control Lists (ACLs)."

Claim 11 recites "data related one" in line 4. It seems as if the word "to" has been omitted between the words "related" and "one".

Claims 13 and 24 recite "attribute to be stored an entry". It seems as if a word has been omitted.

Claims 3 and 34 recite the abbreviation "NT" before first defining the term.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim recites the limitations "a plurality of standalone headers," "data set information," "the data set header," "an extended attribute field," and "an extended attribute." The limitations cannot be found in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 1 recites the limitation "the data set header." There is insufficient antecedent basis for this limitation in the claim.
14. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites "open file/undo header" in lines 2 and 3. The metes and bounds of the limitation are unclear since it is not known whether the limitation refers to an "open file or undo header" or a "open file and undo header."

15. Claims 12 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "a size of up to approximately 2 MB." The metes and bounds of the limitation are unclear.

Claim Rejections - 35 USC § 101

16. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

17. **Claims 1-26** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 and 17 recite an extensible, system-independent, version-interoperable format.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result.

For the result to be tangible, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim yields a data stream with headers and data. An example of a tangible result would be storing or displaying the information.

Claims 2-16 and 18-26, which are dependent respectively on claims 1 and 17, one rejected on the same grounds as claims 1 and 17.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 1-3, 5, 7, 9-12, 16-19 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US PGPub 2004/0022278 to Thomas et al (hereafter Thomas).

Referring to claim 1, Thomas discloses an extensible, system-independent, version-interoperable format for transmitting a data stream having data set information from a source system [local broadcast site] (see Fig 1, item 7b) to a replica residing on a destination system [data receiver/user] (see Fig 1, item 17b) comprising:

a plurality of standalone headers [IP header and UDP header] having discrete identifiers [PID], each of the plurality of standalone headers being representative of a plurality of data stream characteristics (see Figs 8-10); and

a data following header [SAP or UHTTP header] that follows, in the data stream, the plurality of standalone headers and that indicates that the data set information is following the data following header, the data set header including an extended attribute

field that associates an extended attribute with the data set information (see [0080]; [0108]; and [0109]).

Referring to claim 2, Thomas discloses the format as set forth in claim 1 wherein the plurality of standalone headers each include an indication of one of a plurality of specialized header types [MPEG-2 transport stream packet headers] and at least some of the plurality of specialized header types are adapted for carrying directory inode data (see [0080]).

Referring to claim 3, Thomas discloses the format as set forth in claim 3 wherein the data stream is adapted to carry source file system inode data and source file generation numbers [PID] (see [0080]).

Referring to claim 5, Thomas discloses the format as set forth in claim 1 wherein the extended attributes include ACLs and streams associated with a plurality of operating systems and system architectures (see [0067] and Fig 2).

Referring to claim 7, Thomas discloses the format as set forth in claim 1 wherein the data set information comprises file information (see [0080]).

Referring to claim 9, Thomas discloses the format as set forth in claim 1 wherein the data following header includes offset and block number information with respect to the data set information that follows the data following header (see [0080]).

Referring to claim 10, Thomas discloses the format as set forth in claim 1 wherein data following header comprises a fixed-length record including (a) a generic part for storing an indication of a data following header type (see [0080]; [0108]; [0109]); (b) a non-generic part, adapted to carry predetermined data related to the extended

attribute and data related to offsets and block numbers for the data set information that follows the data following header (see [0080]); and (c) a space for a bit-code representative of a name associated with the extended attribute (see [0080]; [0108]; [0109]).

Referring to claim 11, Thomas discloses the format as set forth in claim 1 wherein each of the plurality of standalone headers comprises a fixed-length record including a generic part for storing an indication of one of a plurality of specialized header types, a non-generic part, adapted to carry predetermined data related one of the specialized header types and a space for additional information (see [0080]; [0108]; and [0109]).

Referring to claim 12, Thomas discloses the format as set forth in claim 1 wherein the data following header is adapted to be positioned within the data stream at predetermined intervals that are up to approximately 2 MB of data set information in size (see [0080]).

Referring to claim 16, Thomas discloses the format as set forth in claim 1 wherein the source system and the destination system are remote with respect to each other and interconnected by a network, and wherein the data stream is encapsulated within a networking protocol adapted for transmission over the network [IP network] (see [0068]).

Referring to claim 17, Thomas discloses a format for transmitting a data stream that includes data set information between a source system [local broadcast site] (see

Fig 1, item 7b) and a replica stored on the destination system [data receiver/user] (see Fig 1, item 17b) comprising:

a data following header [SAP or UHTTP header] appended to a predetermined-sized chunk of data [blocks of 184 bytes], the data following header including a field that identifies extended attributes associated with data set information carried in the chunk (see [0080]; [0108]; [0109]; and Figs 8-10).

Referring to claim 18, Thomas discloses the format as set forth in claim 17 wherein the extended attributes include ACLs and streams associated with a plurality of operating systems and system architectures (see [0067] and Fig 2).

Referring to claim 19, Thomas discloses the format as set forth in claim 17 wherein the data set information comprises file information (see [0080]).

Referring to claim 21, Thomas discloses the format as set forth in claim 17 wherein the data following header includes offset and block number information with respect to the data set information that follows the data following header (see [0080]).

Referring to claim 22, Thomas discloses the format as set forth in claim 17 wherein data following header comprises a fixed-length record including (a) a generic part for storing an indication of a data following header type (see [0080]; [0108]; and [0109]); (b) a non-generic part, adapted to carry predetermined data related to the extended attribute and data related to offsets and block numbers for the data set information that follows the data following header (see [0080]); and (c) a space for a bit-code representative of a name associated with the extended attribute (see [0080]; [0108]; and [0109]).

Referring to claim 23, Thomas discloses the format as set forth in claim 17 wherein the chunk has a size of up to approximately 2 MB of data set information (see [0080]).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0022278 to Thomas et al as applied to claim 2 above, and further in view of US PGPub 2003/0066062 to Brannock et al (hereafter Brannock).**

Referring to claim 4, Thomas discloses specialized header types, however, Thomas fails to explicitly disclose the further limitation wherein one of the specialized header types comprises a deleted files type and the directory inode data comprises a list of deleted files on the source file system. Brannock discloses wherein one of the specialized header types [file header] comprises a deleted files type and the directory inode data comprises a list of deleted files on the source file system (see [0029] and Fig 2) in order to track the files which have been deleted.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Thomas to include wherein one of the specialized header types comprises a list of deleted files on the source system as taught by Brannock.

One would have been motivated to do so for the purpose of tracking the files which have been deleted.

21. Claims 6, 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0022278 to Thomas et al as applied respectively to claims 1 and 17 above, and further in view of US PGPub 2001/0001877 to French et al (hereafter French).

Referring to claim 6, Thomas discloses a plurality of standalone headers, however, Thomas fails to explicitly disclose the further limitation wherein one of the plurality of standalone headers comprises an open file/undo header that instructs the destination system to revert to an earlier copy of a stored file identified by the open file/undo header. French discloses wherein one of the plurality of standalone headers comprises an open file/undo header that instructs the destination system to revert to an earlier copy of a stored file identified by the open file/undo header (see [0175]) for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

It would have been obvious at the time the invention was made to modify Thomas to include wherein one of the plurality of standalone headers comprises an open file/undo header that instructs the destination system to revert to an earlier copy of a stored file identified by the open file/undo header. One would have been motivated to do so for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

Referring to claim 8, Thomas discloses data set information, however, Thomas fails to explicitly disclose the further limitation wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system. French discloses wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system (see [0175]) for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

It would have been obvious at the time the invention was made to modify Thomas to include wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system. One would have been motivated to do so for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

Referring to claim 20, Thomas discloses data set information, however, Thomas fails to explicitly disclose the further limitation wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system. French discloses wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system (see [0175]) for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

It would have been obvious at the time the invention was made to modify Thomas to include wherein the data set information comprises changed files on the source system transmitted for backup on the replica of the destination system. One

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would have been motivated to do so for the purpose of reverting to a previous file version due to current unavailability of the most recent version of the file.

22. Claims 13-15 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0022278 to Thomas et al as applied respectively to claims 1 and 17 above, and further in view of US PGPub 2005/0192974 to DeLorme et al (hereafter DeLorme).

Referring to claim 13, Thomas discloses a data following header with an extended attribute. However, Thomas fails to explicitly disclose wherein the destination system is adapted to receive the data following header with the extended attribute and cause the data set information associated with the extended attribute to be stored an entry in a hidden permanent metadirectory with identifiers that are the same as identifiers for the data set information in a file system of the destination system, the entry having the extended attribute associated therewith so that retrieval of the entity from the hidden permanent metadirectory also retrieves the extended attribute.

DeLorme discloses a file system, including the further limitation of wherein the destination system is adapted to receive the data following header with the extended attribute and cause the data set information associated with the extended attribute to be stored an entry in a hidden permanent metadirectory with identifiers that are the same as identifiers for the data set information in a file system of the destination system, the entry having the extended attribute associated therewith so that retrieval of the entity

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from the hidden permanent metadirectory also retrieves the extended attribute (see [0046] and [0047]) in order maintain a directory of data for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the metadirectory disclosed by DeLorme with the header of Thomas. One would have been motivated to do so in order maintain a directory of data for backup.

Referring to claim 14, the combination of Thomas and DeLorme (hereafter Thomas/DeLorme) discloses the format as set forth in claim 13 wherein the destination system also includes a hidden purgatory metadirectory in which current data set information from the hidden permanent directory is stored during an update of the hidden permanent metadirectory with changed data set information, the destination system being further adapted to (a) delete the hidden purgatory metadirectory after a complete receipt of all expected changed data set information of the hidden permanent metadirectory with the changed data set information, and (b) move current data set information stored on the hidden purgatory directory back to the hidden permanent metadirectory after an incomplete receipt of all expected changed data set information (see [0046] and [0057]).

Referring to claim 15, Thomas/DeLorme discloses the format as set forth in claim 14 wherein the destination system is adapted to create hidden new metadirectory to store changed data set information for transfer to the hidden permanent directory after of the complete receipt of all the expected changed data set information (see [0046] and [0057]).

Referring to claims 24-26, the claims are rejected respectively on the same grounds as claims 13-15.

23. Claims 27-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0022278 to Thomas et al in view of US PGPub 2005/0192974 to DeLorme et al (hereafter DeLorme).

Referring to claim 27, Thomas discloses storing and retrieving extended attributes (see [0080]; [0108]; and [0109]). However, Thomas fails to explicitly disclose the further limitations of storing a current data set information with current extended attributes in a permanent hidden metadirectory; transferring the data set information to a purgatory metadirectory upon receipt of a changed data set information; storing the received changed data set information in a new metadirectory; and upon completion of receipt of all expected changed data set information, transferring the received changed data set information from the new metadirectory to the permanent metadirectory, the permanent metadirectory thereby being available for retrieval of extended attributes associated with the data set information. DeLorme discloses a file system, including the further limitations of storing a current data set information in a permanent hidden metadirectory (see [0046] and [0057]); transferring the data set information to a purgatory metadirectory upon receipt of a changed data set information (see [0046] and [0057]); storing the received changed data set information in a new metadirectory (see [0047] and [0057]); and upon completion of receipt of all expected changed data set information, transferring the received changed data set information from the new

metadirectory to the permanent metadirectory, the permanent metadirectory (see [0046] and [0057]) in order maintain a directory of data for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the metadirectory disclosed by DeLorme with the attributes of Thomas. One would have been motivated to do so in order maintain a directory of data for backup.

Referring to claim 28, the combination of Thomas and DeLorme (hereafter Thomas/DeLorme) discloses the method as set forth in claim 27 further comprising the step of, upon a failure to complete receipt of all expected changed data set information, transferring the current data set information with the current extended attributes back to the permanent metadirectory (DeLorme: see [0046] and [0057]).

Referring to claim 29, Thomas/DeLorme discloses the method as set forth in claim 28 wherein the data set information comprises files organized in a directory tree structure the same as a file system structure on the destination system and wherein the extended attributes comprise ACLS and streams associated with the files (DeLorme: see 9C and 9D).

Referring to claim 30, Thomas/DeLorme discloses the method as set forth in claim 29 further comprising the step of deleting the purgatory metadirectory after one of, either (a) the transferring of the changed data set information from the new metadirectory to the permanent metadirectory or (b) the transferring of the current data set information from the purgatory metadirectory back to the permanent metadirectory (DeLorme: see [0046] and [0057]).

Referring to claim 31, Thomas/DeLorme discloses the method as set forth in claim 30 further comprising, upon a request from the source to restore data sets from the data set information, scanning the permanent directory and retrieving the data sets including retrieving respective of the extended attributes associated with the data sets (DeLorme: see [0046] and [0057]).

Referring to claim 32, Thomas/DeLorme discloses the method as set forth in claim 31 further comprising the step of providing the retrieved data sets' extended attributes in a format for transmission to the source from the destination, the format including data following headers each having a field that associates the respective of the extended attributes with the retrieved data sets (Thomas: see [0080]; [0108]; [0109]).

Referring to claim 33, Thomas/DeLorme discloses the method as set forth in claim 32 wherein the respective of the extended attributes are associated with the data sets based upon NT streams (Thomas: see [0043]).

Referring to claim 34, Thomas/DeLorme discloses the method as set forth in claim 27 wherein the extended attributes are associated with the data set information in the permanent metadirectory using NT streams (Thomas: see [0043]).

Referring to claim 35, Thomas/DeLorme discloses the method as set forth in claim 27 further comprising the step of providing the data sets' extended attributes in a format for transmission to the destination from the source, the format including data following headers each having a field that associates the respective of the extended attributes with the retrieved data sets (Thomas: see [0080]; [0108]; and [0109]).

Referring to claim 36, Thomas discloses a method for ensuring coherency in a data set transmitted from a source system to a replica on a destination system (see [0080]; [0108]; and [0109]). However, Thomas fails to explicitly disclose the further limitations of retrieving a first modification time on the source system for the data set; opening the data set on the source system and transmitting the data set from the source system to the destination; after completing transmitting, closing the data set on the source system and retrieving second modification time on the source system; and if the second modification time and the first modification time are not the same, providing by the source system an instruction to the destination system to revert to an earlier stored copy of the data set on the replica. DeLorme discloses a file system, including the further limitations of retrieving a first modification time on the source system for the data set (see [0046] and [0057]); opening the data set on the source system and transmitting the data set from the source system to the destination (see [0046] and [0057]); after completing transmitting, closing the data set on the source system and retrieving second modification time on the source system (see [0046] and [0057]); and if the second modification time and the first modification time are not the same, providing by the source system an instruction to the destination system to revert to an earlier stored copy of the data set on the replica (see [0046] and [0057]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the retrieval times disclosed by DeLorme with the source and destination of Thomas. One would have been motivated to do so synchronize the replica at certain time intervals.

Referring to claim 37, Thomas/DeLorme discloses the method as set forth in claim 36 wherein the step of providing the instruction comprises transmitting an undo standalone header in a data stream that includes the data set, the standalone header identifying the data set and indicating an undo header type (DeLorme: see [0046] and [0057]).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Kimberly Lovel
Examiner
Art Unit 2167

9 December 2006
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